FILED
07/01/22
12:41 PM
R2008020

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision D. 16-01-044, and to Address Other Issues Related to Net Energy Metering.	Rulemaking 20-08-020 (Filed August 27, 2020)

REPLY COMMENTS OF THE SOLAR ENERGY INDUSTRIES ASSOCIATION AND VOTE SOLAR ON ADMINISTRATIVE LAW JUDGE'S RULING SETTING ASIDE SUBMISSION OF THE RECORD TO TAKE COMMENT ON A LIMITED BASIS

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July 1, 2022

Pursuant to the May 9, 2022, *Administrative Law Judge's Ruling Setting Aside Submission of the Record to Take Comment on a Limited Basis,* the Solar Energy Industries Association ("SEIA") and Vote Solar reply to the comments submitted on June 10, 2022.

I. INTRODUCTION

Consistent with our approach throughout this proceeding, SEIA and Vote Solar's opening comments attempted to offer a reasoned approach to a net energy metering ("NEM") successor tariff that would balance the statutory dictates of industry sustainability and cost effectiveness. In contrast, the Joint Utilities expended a great deal of effort denigrating rooftop solar[1] and use their pleading to put before the Commission unsubstantiated claims on the impact of NEM on non-participating customers. This is readily apparent in their Table 1, which attempts to attribute massive rate increases to rooftop solar customers. The table essentially asserts that every kWh of customers' solar output should have been provided by the Joint Utilities' rate-based grids, thus reducing rates by spreading utility costs over higher volumes. Using this logic, a similar table would show that California's energy efficiency programs have produced massive rate increases. These arguments overlook California's longstanding policy initiatives that encourage clean energy infrastructure both in the way of energy efficiency and on-site renewable generation.

The Joint Utilities' Table 1 is also misleading because it uses only a single year of avoided costs from the 2021 Avoided Cost Calculator to offset the alleged rate increases from rooftop solar. These 2021 avoided costs are low precisely because the costs of new solar generation have fallen dramatically over the last two decades and because the growth of solar, with zero fuel costs, is reducing midday electric market prices. Existing solar customers purchased their systems when solar costs were much higher, contributed to driving down solar costs, and thus have played an important role in making solar the least-cost source of clean energy for California.[2] An accurate calculation of cost shifts to non-participants must use not today's single-year avoided costs, but *long-term*, 25-year levelized avoided costs calculated at the time each system comes online. The Commission also must consider and must also factor in the societal benefits of this renewable generation[3], including mitigation of the damages from climate change, health benefits from reduced air pollution, lower land use for energy production,

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1 Joint Utilities Comments, pp. 2-6.

2 *See* Exh. SVS-03 (Beach), Attachment RTB-4.

3 *See* Exh. SVS-03 (Beach), pp. 20-26.

and the local economic benefits of new jobs installing solar systems. The IOUs did neither of these in the calculations they made for Table 1, thereby vastly overstating the impacts on non-participants. The Commission should ignore the histrionics of the Joint Utilities and focus on the statutorily dictated job at hand – balancing the required sustainability of the industry with the cost effectiveness of the successor tariff.

II. GLIDE PATH APPROACH

Below SEIA and Vote Solar respond to certain parties' comments regarding the use of the ACC Plus transition mechanism set forth in the May 9 Ruling.

A. An ACC Adder is Necessary Even Using Updated Data

The Joint Utilities assert that transition credits for successor tariff customers are not necessary as increases in electric rates over the past few months have "negated the need for any transition credit under a reformed NEM structure to allow systems to meet the PD's 10-year payback goal."[4] Thus the Joint Utilities state that "[a]ny final decision that enacts transition credits should implement them through a construct that calculates them based on current rates to achieve a payback period established in the decision, not rates that were in place a year ago when testimony was submitted."[5] Based on this assertion, the Joint Utilities display a table which purports to illustrate that, with the exception of CARE customers in PG&E's service territory, no transition credits are warranted.[6] The Joint Utilities are incorrect.

Cal Advocates took another approach to their proposed adders under the ACC Plus mechanism. As explained by Cal Advocates, their "ACC Plus riders were developed by converting the PD's monthly $/kW MTC to annual $/kW MTC, then dividing it by the exported amounts of a typical solar-only customer for each of the investor-owned utilities."[7] This approach is equally erroneous to the one used by the Joint Utilities.

The Joint Utilities were careful to factor into their analysis the rate increases which have occurred this year but relied on a significantly understated cost of solar - $2.34 per kW-DC.[8] Cal Advocates ignored the rate increase and continued to use the same erroneous cost of solar. The

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4 Joint Utilities Comments, p. 6.

5 *Id*., p. 11.

6 *Id*., p. 12.

7 *See* Cal Advocates Comments, p. 3.

8 $2.34 per kW-DC is the 2018 $/watt cost assumed in 2022 in cell G8 of the upfront cost tab of the E3 model used by the Joint Utilities in their workpapers.

$2.34 per kW-DC solar cost number has been shown on the record to be far too low for use in a payback period analysis for the successor tariff.[9] Moreover, after many years of declines, the cost of solar in the last several years has been flat. Keeping with the record evidence, in its comments on the Proposed Decision, SEIA and Vote Solar showed that the cost of general market solar which should be used for any payback analysis was $3.52 per kW-DC. However, that cost was based on recorded solar costs in 2019, plus an assumption that solar costs have continued to drop since 2019 at the historical rate of decline.[10] That has not been the case, as indicated clearly by the Commission's data base on solar costs.[11] Thus, based on the record, a more accurate number to use for the general market cost of solar is $3.87 per kW-DC.[12]

Using this cost of solar and 2022 rates for each of the Joint Utilities, the necessary adders to achieve a ten-year simple payback for solar + storage systems (increased if necessary to produce 10% first-year savings for systems financed with a 20-year loan at 7%) are as follows.[13]

Table 1: *Updated First-year Residential ACC Plus Adders*

Utility/Rate	**Solar Cost** ($/Watt-dc)	**Type of System**	**Simple Payback** (years) or **Monthly Savings** (%)	**ACC Plus Adder** $/kWh
PG&E EV2	$3.87	S + S	10%	0.086
SCE TOU-D-PRIME		S + S	10%	0.101
SDG&E EV-TOU-5		S + S	10%	0.000

[9] *See* SEIA/Vote Solar Comments, pp.7-8; *see also* Natural Resources Defense Council ("NRDC") Comments, p. 9 (noting that "[t]he Commission's task is to start with a reasonable and representative install costs" and recommending $3.52 per kW-DC based on the record).

[10] *See E*xhibit CSA-02, pp. 67-68 and Table 1. (Using Lawrence Berkeley National Laboratory's 2020 version of its "Tracking the Sun" report, which analyzes and summarizes actual installed prices, it shows that the average cost of solar to residential customers in California was $3.80/watt-DC in 2019. The $3.52 was based on a 5 percent decline in solar per year until 2023 which has not occurred.).

[11] *See* the Cost per Watt chart at https://www.californiadgstats.ca.gov/charts/.

[12] This is the 2019 cost of solar as shown on the record ($3.80) as expressed in 2023 dollars. It also should be noted that a price of $3.87 per kW-DC is the median price of solar. Achieving this installed cost requires a range of sales prices that cover a wide range of prices. Necessarily, half of systems cost more than the median. There is a risk that, if all those systems no longer provide a reasonable payback, selling costs will increase and the median solar system will cost more than $3.87 per kW-DC.

[13] Note that these adders assume no Grid Participation Charges or NBCs on behind the meter consumption. In addition, the analysis consolidates ACC values into the same TOU periods used in the Joint Utilities electrification rates as proposed in SEIA and Vote Solar's Opening Comments (pp. 7-8 and Attachment A).

While these adders reflect interest rates documented in the record, long term interest rates have risen precipitously in the past 6 months,[14] with the cost of capital for securitization of solar loans increasing by approximately 3%.[15]

Moreover, these adders will go up significantly if non-bypassable charges ("NBCs") are assessed on behind the meter ("BTM") usage. **Table 2** below shows the ACC Plus adders needed to meet a sustainable 10-year payback or 10% monthly savings if NEM 3 customers must pay all ten NBCs (including the PCIA) on BTM usage. It makes no sense to assess NBCs on BTM usage if this money is simply returned in a higher ACC adder. Moreover, as we demonstrated in our opening comments, the Commission's jurisdictional reach behind the meter is limited and does not give it authority to assess NBCs on self-consumption. Moreover, there is no cost causation link between BTM consumption and the costs underlying many of the NBCs, rendering the assessment of these NBCs on BTM consumption unjust and unreasonable.[16]

Table 2: *Updated First-year Residential ACC Plus Adders (assuming NBCs on BTM Usage)*

Utility/Rate	**Solar Cost** ($/Watt-dc)	**Type of System**	**Simple Payback** (years) or **Monthly Savings** (%)	**ACC Plus Adder** $/kWh
PG&E EV2	$3.87	S + S	10%	0.158
SCE TOU-D-PRIME		S + S	10%	0.143
SDG&E EV-TOU-5		S + S	10%	0.047

B. Use of an ACC Adder vs. MTC

Several parties object to the use of an ACC adder because they contend that it will benefit solar-only systems, which is antithetical to the goal of having solar + storage be the primary industry product.[17] Indeed Cal Advocates contends that it "would benefit solar-only customers

[14] See https://www.freddiemac.com/pmms

[15] According to publicly available materials, Goodleap, the largest originator of solar loans, performed securitizations on October 21, 2021, and April 13, 2022. Goodleap's cost of capital increased 2.23% during that time period. Sunrun, the largest buyer of solar leases, performed securitizations on September 22, 2021, and April 26, 2022. Its cost of capital increased 2.64% during that time period. Based on recent secondary trading, cost of capital may be another 0.47% higher than at the time of Sunrun's April 2022 transaction. The cost of capital for solar loans is presently higher than 5%.

[16] SEIA / VS Comments, pp. 14-23.

[17] Cal Advocates Comments, p. 1; CUE Comments, p. 2; TURN Comments, p. 1.

exclusively."[18] SEIA and Vote Solar acknowledge that, because an ACC adder applies to a customer's exports, it will provide greater benefits to customers who export more of their production, i.e., solar-only customers. However, unless a solar + storage customer consumes 100 percent of its production, which is unlikely given the current cost of storage, the solar + storage customer will benefit from an ACC adder. But the fact that an ACC adder initially offers more support for solar-only customers is a good thing and is necessary during the transition period. Indeed, the parties that oppose the use of the adder do not appear to understand its purpose – fulfilling the statutory mandate of ensuring that customer-sited renewable distributed generation continues to grow sustainably by supporting the solar-only market during the period necessary for solar + storage to become the industry's primary product,[19] a concept accurately captured in Sierra Club's comments:

> As parties have noted throughout this proceeding, the market is not ready to immediately shift to high levels of solar + storage adoption. Sierra Club prefers a fixed c/kWh adder because it best serves the ACC Plus glidepath's function as a transitionary mechanism.[20]

Moreover, as we noted in our opening comments, as the ACC adder decreases over the years of the glide path, the benefit of the adder for solar-only systems will decline faster than for solar + storage, reducing the attractiveness of solar-only compared to solar paired with storage.[21] This will send clear signals to customers to choose solar + storage systems and to the industry to make solar + storage its primary product. In other words, the adder will have served its intended purpose of initially sustaining the solar only market during the time period necessary for the industry to overcome the current barriers it is facing vis-à-vis storage installations (e.g., the greater cost and complexity of solar + storage systems, supply chain issues for the batteries, and the need to finalize installation codes and standards), while effectively pushing the market towards one in which solar + storage is the primary product.

C. Length of Glide Path

Without doing any analysis, several parties argue that a four-year glide path, with the

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18 Cal Advocates Comments, p. 1 (emphasis added).

19 *See* Proposed Decisions, p. 83 ('The successor [tariff] should transition the solar market to a solar paired with storage market"); *see also, id.,* p. 116.

20 Sierra Club Comments, p. 4.

21 SEIA / VS Comments, p. 9.

ACC Plus adder (or MTC) being reduced by 25 percent a year, is sufficient.[22] Thus, even if solar or solar + storage adoption in those four years is miniscule, these parties would have the Commission step down any adder to zero. These parties fail to discuss how such a scenario would comply with the statutory mandate that the adopted tariff ensure that customer-sited distributed solar continues to grow sustainably. The only means to ensure that the length of the glide path is consistent with its intended purpose is to use a capacity-based stepdown such as the one proposed by SEIA and Vote Solar – a step down of the adder by 20% when each IOU reaches its share of a total of 780 MW of new residential NEM 3.0 solar installations across the three IOUs' service territories.[23] If the industry stays consistent with its current level of annual deployment in California, the glide path would end in five years. Importantly, however, a capacity-based step-down factors in the unknown – i.e., the fits and starts of adoption as costs change and as the solar market adjusts to the new successor tariff.[24] This type of self-regulating stepdown is consistent with the Commission's acknowledgement that "*encouraging growth and expansion* of customer-sited renewable DG has been, and continues to be, a central theme behind NEM legislation and the Legislature's expressed intent."[25]

D. Eligibility of Nonresidential Customers for a Glide Path

Several parties oppose a non-residential glide path,[26] making the baseless assertion that it would exacerbate cost shifts among customers.[27] To the contrary, the record of this proceeding, including the Commission's Lookback Study, make clear that nonresidential NEM customers pay for their cost of service, have low midday rates, and take service on rate schedules that feature demand charges.[28]

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22 *See* Cal Advocates Comments, p. 9; CUE Comments, p. 6; Joint Utilities Comments, p. 12.

23 SEIA/VS Comments, p. 12.

24 *See, e.g.,* Joint CCA comments, p. 9 ("A volumetric step-down policy ensures that distributed generation is in fact growing sustainably; should the reduction in the ACC Plus slow the growth trajectory, the mechanism prevents further reduction until the industry has time to recover from the change.").

25 D. 16-09-036, pp. 13 (emphasis added).

26 *See* CUE Comments, pp. 7-8; Joint Utilities Comments, pp. 14; Cal Advocates Comments, pp. 10-11; TURN Comments, pp. 10-11.

27 CUE Comments, p. 8.

28 *See* the Lookback Study, p. 98, Table 5-11, showing that non-residential NEM customers pay more than their cost of service (i.e., 152% for PG&E, 108% for SCE, and 166% for SDG&E).

Several parties correctly support a nonresidential ACC adder.[29] While using the E3 model to develop its proposed small commercial glide path, CALSSA correctly asserts that the E3 model is insufficient for the medium and large commercial market, as it does not include rates with demand charges. Instead, CALSSA's proposed glide path for these customers is designed to create a gradual and predictable transition for this market segment from the current NEM 2.0 program to avoided costs.[30] SEIA and Vote Solar reiterate our support for CALSSA's proposed glide path for all nonresidential market segments.

III. NON-BYPASSABLE CHARGES

Through opening comments, SEIA and Vote Solar demonstrated that the Commission's jurisdictional reach behind the meter is limited and does not extend to assessing NBCs on self-consumption of NEM customers.[31] Moreover, even if the Commission could somehow circumvent the jurisdictional limitation, there is no cost causation link between BTM consumption and the costs underlying many of the NBCs, rendering the assessment of these NBCs on BTM consumption unjust and unreasonable.[32] Nor are there any statutory provisions which make BTM consumption subject to any of the NBCs. Parties that support the application of NBCs to BTM consumption have not, and cannot, overcome these fundamental barriers.

A. The Commission Lacks Jurisdiction to Assess NBCs on BTM Consumption

None of the parties advocating for the assessment of NBCs on the BTM consumption of NEM customers address the fundamental issue of whether the Commission has the jurisdiction to do so. SEIA and Vote Solar addressed this lack of jurisdiction in our opening comments and will not repeat those arguments here. However, we would add that assessment of NBCs on the behind the meter consumption of NEM customers is distinguishable from the assessment of such on customer generation departing load.[33] In the former instance, the Commission has no statutory authority to do such, while in the latter it does. Specifically, in imposing cost responsibility surcharges (i.e., certain NBCs) on customer generation departing load, the

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[29] See, e.g., SBUA Comments, p. 5; County of Los Angeles Comments, p. 8; Joint CCA Comments, p. 11; CESA Comments, pp. 8-9; CALSSA Comments, pp. 9-11.

[30] CALSSA Comments, pp. 9-11.

[31] SEIA/VS Comments, pp. 14-16; s*ee also* CALSSA Comments, pp. 12-13.

[32] SEIA/ VS Comments, pp. 16-22.

[33] *See* TURN Comments, p. 13 (noting that all three IOUs currently have rate schedules that collect several nonbypassable charges from eligible departing load customers based on the metered or estimated production from certain types of onsite generation used to serve the customer's load).

Commission determined that:

> [It] has the requisite legal authority to authorize and implement cost responsibility surcharges on Customer Generation load. *This authority is clearly set forth in Assembly Bill No. 117 ("AB 117"),* which clarified the Legislature's intent concerning the implementation of AB 1X, and the recovery of DWR-related costs from retail end-use customers. (AB 117, Stats. 2002, ch. 838).[34]

There is no comparable legal authority that authorizes the assessment of NBCs on NEM customers' BTM consumption. As stated in SEIA and Vote Solar's opening comments, because NEM customers are not public utilities, the Commission's broad jurisdiction under PU Code Section 701 does not extend to taxing energy produced and consumed behind the customer meter. It must have specific statutory authorization.[35]

B. There is No Cost Causation Link Between BTM Consumption and NBCs

The Joint Utilities assert that "with regard to the threshold issue of legality, cost-based mechanisms to recover costs from NEM customers that are different than the cost-based rate mechanisms that recover the same costs for non-NEM customers are legal."[36] Even setting aside the legal accuracy of that statement, the fact is that the Joint Utilities have not demonstrated the cost causation link between BTM consumption and any of the NBCs. In fact, they do not even address it. Other advocates for the assessment of NBCs on BTM consumption, such as Cal Advocates and CUE, also provide no cost causation analysis. And while TURN attempts a couple of different rationales for such an assessment, neither stand up to scrutiny. First, TURN argues that exempting BTM consumption from the assessment of NBCs "would force other customers to pay higher rates."[37] While this may be true, that does not mean that the BTM meter consumption caused the utility to incur the costs. Second, TURN argues that "the quantity of electricity usage by an individual customer has no impact on the calculation" of certain NBCs, such as the PCIA.[38] But that simply is not true. As explained in SEIA and Vote Solar's opening comments, [39] NEM customers have not and should not cause any above-market costs of generation associated with IOU procurement to serve bundled load (which are recovered through

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34 D. 03-04-030, p. 38 (emphasis added).
35 SEIA/ VS Comments, pp. 14-15.
36 Joint Utilities Comments, p. 15.
37 TURN Comments, pp. 16 and 18.
38 *Id.,* p. 17.
39 SEIA/ VS Comments, p.18.

the PCIA). NEM customers' reduction in their "quantity of electricity usage" has for many years been taken into account in the load forecasts that drive the utilities' bundled procurement plans. Because utilities account for NEM customers' reduced load in their procurement plans, the utilities should not have procured new generation to serve that load, and thus they have not incurred and do not have "above market" procurement costs for NEM customers that needs to be recovered via the PCIA from NEM customers or any other customers.

Finally, we note that NRDC is simply incorrect in its statement that in Decision 16-01-044 "[t]he Commission [] previously recognized that NBCs can be charged to NEM customers based on their gross consumption."[40] In that Decision, the Commission determined that, with respect to four specified NBCs, that NEM successor tariff customers must "pay nonbypassable charges on each kWh of electricity they *consume from the grid* in each metered interval."[41] In other words, the charges are assessed on imports from the grid, not on BTM consumption.

C. The PU Code Does Not Require the Assessment of NBCs on BTM Consumption

In an attempt to bolster their argument for the Commission to assess NBCs on BTM consumption, the Joint Utilities argue that there are certain statutes that "require" the Commission to do so.[42] But, none of the cited statutes authorize the Commission to assess the applicable NBC on BTM consumption.

First, the Joint Utilities assert that "Public Utilities Code § 365.1(c)(2), governing Local and New System Generation Charges, provides that the net costs of procurement to satisfy system or local reliability needs pursuant to the Cost Allocation Method are allocated on a fully non-bypassable basis."[43] The Joint IOUs, however, omit the part of the statute that states that the costs should be allocated on a nonbypassable basis to (a) bundled service customers of the electrical corporation, (b) customers that purchase electricity through a direct transaction with other providers, and (c) customers of community choice aggregators.[44] As explained in SEIA and Vote Solar's opening comments, none of these customer categories, as defined in the statute, includes BTM self-consumption.[45]

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40 NRDC Comments, p. 10.

41 D. 16-01-044, p. 89 (emphasis added).

42 Joint Utilities Comments, p.18.

43 *Id.*

44 *See* PU Code Section 365.1 (b)(2)(A) (i), (ii) and (iii).

45 SEIA / VS Comments, p. 17.

Second, the Joint Utilities assert that "Public Utilities Code § 366.2(h)(2) provides that the PCIA shall be non-bypassable and should be treated as such for Tariff customers." According to the Joint Utilities, "customers who depart IOU service and receive their generation from another source are still required to pay the above-market costs of resources that were procured on their behalf," and "[c]ustomers who adopt rooftop solar should not be treated differently."[46] But Section 366.2(h)(2) does not provide for the assessment of the PCIA on BTM consumption. Rather it actually provides that "[c]harges imposed pursuant to subdivisions (d), (e), and (f) shall be nonbypassable."[47] Subsection (d) refers to DWR Bond cost (which have now been fully recovered), while subsections (e) and (f) pertain to the assessment of charges on CCA customers.

Third, the Joint IOUs assert that AB 1054, pertaining to the Securitized Wildfire Capital Costs/Energy Cost Recovery Account, "directs the Commission to impose non-bypassable fixed recovery charges for the securitization of fire risk mitigation capital expenditures and other costs relating to catastrophic wildfires."[48] What AB 1054 actually directs is that the fixed recovery charges be recovered from every "Consumer," defined to mean "any individual, governmental body, trust, business entity, or nonprofit organization that consumes *electricity that has been transmitted or distributed by means of electric transmission or distribution* facility."[49] BTM consumption is not transmitted or distributed by means of a transmission or distribution facility.

IV. CONCLUSION

SEIA and Vote Solar appreciate the Commission's difficult task of fashioning a successor tariff that effectively balances all statutory objectives. The key to doing this ensuring the use of accurate data as well as ensuring that all rate assessments are within the Commission's jurisdiction and are just and reasonable. As demonstrated above and in SEIA and Vote Solar's opening comments, the ACC Plus construct introduced in the May 9 Ruling, if structured correctly over a sufficient period of time – using accurate data and no GPC or NBCs (which either exceed the Commission's jurisdiction and / or are not compliant with just and reasonable ratemaking) – could provide the means for the Commission to complete this task.

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46 Joint Utilities Comments, p.18.

47 PU Code Section 366.2(h)(2).

48 Joint Utilities Comments, p.18.

49 *See* PU Code Section 850(b)(3) (emphasis added).

Respectfully submitted, this 1st day of July 2022, at San Francisco, California.

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[50] In accord with Rule 1.8, the representative of the Solar Energy Industries Association has the authority to sign this pleading on behalf of Vote Solar.